THE USE OF VITAMINE FOOD-TABLETS AS AN AID TOWARD CONSERVING THE FOOD SUPPLY[1]

IN the conservation of food, it is necessary to remove the vitamines from certain staple products. Wheat flour can not be conserved for a long period unless it is bolted, thereby removing all of the vitamines. Cane sugar is perfectly stable, but this stability is due to the fact that any protein or vitamine that may have been in the cane juice has been removed. The hydrogenated fats are about the most stable of the fats, and yet the vitamine content is zero. It is, therefore, highly desirable to have vitamine preparations to complete the dietary. Fresh vegetables and fruits may be had in season, but their transportation, storage and marketing are very expensive, and usually accompanied by enormous waste. There are many families who do not, under the present system, receive sufficient vitamines in their food. Therefore, some addition seems necessary, but this is clearly considered as an addition, and not as a substitute for anything. These additions may be in the form of dehydrated products. Many of the vegetables and fruits may be dehydrated and consumed in a form which will furnish the consumer with considerable vitamine, and yet not necessitate a change in the methods of preparation of foods by the family. Those dehydrated vegetables may contain vitamines *A* and *B*, and dehydrated fruits may, under certain circumstances, contain in addition some vitamine—*C*. The dietary habits of various persons, however, form an obstacle to the consumption of sufficient vitamines. There are also many persons who can relish fresh foods (spinach, for instance) when they can not stomach dehydrated foods (spinach). The peel of citrus fruits, and some other fruits, is very rich in vitamines, yet no one eats them. For those persons who do not relish certain vitamine-containing vegetable products, the use of tablets containing these products, that may be swallowed whole, seems desirable. Orange peelings ground in a meat chopper, dried and ground in a coffee mill may be made into tablets by the addition of dehydrated orange juice acting as a binder. Such tablets contain vitamines *A*, *B* and *C*. Ground spinach may be similarly made into tablets with orange juice. I have tried these preparations on animals and determined their effectiveness in regard to vitamine content. Many workers may be engaged in determining the exact vitamine content of many of these preparations[2] and I do not wish to compete with their work in this paper, but merely wish to advocate the method of swallowing this vitamine food whole, in order to avoid the censorship of the palate.

J. F. MCCLENDON

[1] Contribution from laboratory of physiological chemistry, University of Minnesota.

[2] Cooper, Ethel, 1921, *Proc. Exp. Biol. Med.*, XVIII., 343.

SCIENTIFIC BOOKS

The Anatomy of the Nervous System from the Standpoint of Development and Function. By STEPHEN WALTER RANSON, Professor of Anatomy in Northwestern University Medical School. 395 pages, 260 illustrations. Philadelphia, W. B. Saunders Co., 1920.

A certain professor in an American university, through whose laboratory there annually pass between one and two hundred students of the anatomy of the nervous system, has been heard to remark, "Nobody ever learned any neurology out of a book," meaning, of course, that only by actual laboratory contact with neurological materials can one hope to master the baffling complexity of brain structure. No printed description, no pictorial illustration, not even the laboratory demonstration of elegant dissections and brilliantly stained microscopic sections, can take the place of the kinesthetic experience which each must acquire for himself by personal study, manipulation, and dissection of the tissues.

Of course, to this it may be answered that nobody ever learned much neurology without the aid of good books. And until relatively recent times the lack of suitable student manuals was probably one of the factors responsible for the futility of much of the teaching of the